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EXAMINER	
DESIR, PIERRE LOUIS	
ART UNIT	**PAPER NUMBER**
2681	

DATE MAILED: 07/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/761,858	BRIANCON ET AL.	
	Examiner	Art Unit	
	Pierre-Louis Desir	2681	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 March 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *03/30/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 03/30/2005 have been fully considered but they are not persuasive.

Applicant argues that the portions of Mortensen cited by the examiner are not applicable to the present invention. applicant states "the scheduling mentioned in paragraph 0024 is in connection with scheduling of data services, which is a RRM function. This is not the same as scheduling RRM procedures, as in claimed in independent claims 1 and 9."

Examiner respectfully disagrees with applicant assertions. Claims 1 and 9 broadly disclose a scheduling radio resource management. Paragraph 24 of Mortensen, cited by examiner, discloses that each RNC provides radio resource management functionality, and the RRM encompasses functions like scheduling of data services and other RRM mechanism. Examiner broadly interprets scheduling data services and other RRM mechanisms as scheduling RRM procedure. It is worth to note that applicant does not disclose, in the stated claims, the type of RRM procedures that are to be scheduled.

Applicant further argues, citing paragraphs 2 and 14, Mortensen teaches away from rejecting communication requests to control the network load.

Examiner, again, respectfully disagrees with applicant. In paragraph 2, Mortensen discloses "one way of controlling the load on the communication network, which is utilized in the global system for mobile communications, consists of rejecting communication requests of a mobile station with a message forbidding the mobile station to access the channel for some specified length of time." And in paragraph 14, Mortensen discloses "the invention is

advantageous in that it enables to handle a congestion situation without service refusal by increasing the interleaving length in response to the detection of a congestion situation." Examiner maintains that communication requests are only being rejected for some specified length of time while the interleaving length of a service is dynamically adapted to a certain congestion situation. After the adaptation of the interleaving length, communication would resume.

Applicant argues that Mortensen does not place a radio link into a busy state or idle state. Applicant cited the portion of Mortensen, which discloses, "When the congestion situation has been resolved, the mobile phone is switched to its initial parameter."

Examiner respectfully disagrees with applicant. Paragraph 37 states "the mobile phone is already initialized to switch into an alternative mode (i.e., idle (sleep inactive) or busy) of operation when a congestion situation occurs **to make more efficient usage of the available channel capacity**." The mobile phone would switch to a mode or state where it can make more efficient usage of the available bandwidth. And the mode or state can be idle (sleep inactive) or busy mode.

A limitation in claim 9 broadly recites the step of "preparing a set of predicted measurements for use by the other RRM procedure," (No disclosure in the claim of what type of predicted measurements) which was broadly interpreted by examiner. Mortensen discloses in paragraph 34 that more that two parameter sets can be utilized in order to allow a finer level of adaptation of the communication parameters utilized by the mobile phone to the actual network traffic conditions, wherein a good choice for the interleaving length T1 is 10ms or 20ms for

normal non-congested network situation, and T2 is 40ms or 80ms for the congested (i.e., preparing a set of predicted measurements).

Applicant further argues, "Lu applies a simple pass/fail result to a situation before assigning different priorities to the same set of algorithms. This is not equivalent to analyzing the results of selected RRM procedures and choosing a subset of selected RRM procedures to determine an optimal set of results as recited in independent claim 1."

Examiner respectfully states that applicant's argument (interpretation), as related to Lu, does not apply to the portion of Lu cited by applicant.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 9-11, and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Mortensen et al. (Mortensen), Pub. No. US2003/0096608.

Regarding claim 9, Mortensen discloses a method for scheduling radio resource management (RRM) procedures in a wireless communication system (see page 2, paragraph 24), comprising the steps of: receiving at least one trigger, each trigger being associated with at least one RRM procedure (i.e. a congestion situation is detected by the RNC) (see fig. 1, page 2,

paragraph 30); placing a radio link into a busy state, whereby the radio link is accessible only by a currently executing RRM procedure; performing the RRM procedure on the radio link (i.e. Mortensen discloses a way of controlling load (congestion) on communication network by rejecting communication request through forbidding the mobile station to access the channel for some specified length of time; thus one skilled in the art would immediately envision that rejection is an inherent function of the process of placing the radio link into a busy state. Furthermore, while in this state, the radio link is accessible only by the currently executing state so that new configuration can take place) (see page 1, paragraph 2, lines 3-8); preparing a set of predicted measurements for use by the other RRM procedures (see page 2-3, paragraph 34); and placing the radio link into an idle state, whereby the radio link is accessible by any RRM procedure (i.e. when the congestion situation, for instance, is over, the RNC select an interleaving length to be utilized accordingly; thus, one skilled in the art would unhesitatingly conceptualize that placement of the communication link into idle state takes place when the congesting situation is over) (see page 2, paragraph 32).

Regarding claim 10, Mortensen discloses a method (see claim 9 rejection), wherein the performing step includes configuring a radio link (Mortensen discloses a method in which for changing a parameter set, synchronized radio link reconfiguration can be utilized; thus, inherently the radio link had to be configured before reconfiguration can happen. Furthermore, the steps of evaluating and selecting the trigger as described in claim 1 rejection, can be considered, as understood from the specification, functions of the configuration process) (see claim 1 rejection, see page 3, paragraph 7).

Regarding claim 11, Mortensen discloses a method (see claim 9 rejection), wherein the performing step includes reconfiguring an existing radio link (see page 3, paragraph 7).

Regarding claim 14, Mortensen discloses a method, wherein the set of predicted measurements (i.e. parameter set) (see paragraph 27) is stored in a centralized database (i.e. server) (see paragraph 27).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-8, and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mortensen et al. (Mortensen), Pub. No. US2003/0096608 in view of Lu, U.S. Patent No. 6771624.

Regarding claim 1, Mortensen discloses a method for scheduling radio resource management (RRM) procedures in a wireless communication system (see page 2, paragraph 24), comprising the steps of:(a) receiving at least one trigger (i.e. a congestion situation is detected by the RNC) (see fig. 1, page 2, paragraph 30); (b) evaluating the at least one trigger (i.e. the detected congestion has to be inherently evaluated before the proper selection can take place) (see fig. 1, page 2, paragraph 30); (c) selecting RRM procedures to execute, based upon the evaluation of the at least one trigger (i.e. in response to the detection of the congestion, and after an inherent evaluation, the RNC makes a selection) (see fig. 1, page 2, paragraph 30 and

33); (d) executing the selected RRM procedures (i.e. after the RNC made the selection, the execution process takes place and a data packet is received by a mobile phone) (see page 2, paragraph 30-31).

Although, Mortensen discloses a method as described above, Mortensen fails to disclose a method comprising further comprising the steps of analyzing the results of the selected RRM procedures; choosing a subset of the selected RRM procedures to determine an optimal set of results; executing the subset of RRM procedures.

However, Lu discloses a method a method for scheduling radio resource management (RRM) procedures in a wireless communication system (see col. 1, lines 13-16) comprising the steps of analyzing the results of the selected RRM procedures (i.e. for managing a plurality of algorithms, analyzing the RRM procedures by defining the RRM algorithm priority levels) (see col. 3, lines 11-14); choosing a subset of the selected RRM procedures to determine an optimal set of results (i.e. define the same priority parameters for algorithms within the same priority level, and inherently choose the appropriate algorithm for execution) (see col. 3, lines 15-21); and (g) executing the subset of RRM procedures) (i.e. RRM procedure execution take place) (see col. 3, lines 21-24).

Mortensen and Lu are analogous art because they are from the same field of endeavor.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Mortensen with the teachings of Lu to obtain the claimed inventions. A motivation to do so would have been to obtain optimum efficiency (see col. 3, lines 6-8).

Regarding claim 2, Mortensen discloses a method (see claim 1 rejection) including the steps of placing a radio link into a busy state, whereby the radio link is accessible only by the currently executing RRM procedure (i.e. Mortensen discloses a way of controlling load (congestion) on communication network by rejecting communication request through forbidding the mobile station to access the channel for some specified length of time; thus one skilled in the art would immediately envision that rejection is an inherent function of the process of placing the radio link into a busy state. Furthermore, while in this state, the radio link is accessible only by the currently executing state so that new configuration can take place) (see page 1, paragraph 2, lines 3-8); performing the RRM procedure on the radio link (i.e. when the congestion is detected, after evaluation and selection of RRM procedure, the selected RRM procedure is executed; thus, performing the RRM procedure on the radio link takes place) (see page 2, paragraph 30-31); and placing the radio link into an idle state, whereby the radio link is accessible by any RRM procedure (i.e. when the congestion situation, for instance, is over, the RNC select an interleaving length to be utilized accordingly; thus, one skilled in the art would unhesitatingly conceptualize that placement of the communication link into idle state takes place when the congesting situation is over) (see page 2, paragraph 32); and preparing a set of predicted measurements (i.e. parameter set) for use by the other RRM procedures in the subset (see page 2-3, paragraph 34).

Although Mortensen discloses a method as described above, considering the dependency of this claim on the preceding claim, Mortensen fails to disclose a method comprising further comprising the steps of analyzing the results of the selected RRM procedures; choosing a subset

of the selected RRM procedures to determine an optimal set of results; executing the subset of RRM procedures.

However, Lu discloses a method for scheduling radio resource management (RRM) procedures in a wireless communication system (see claim 1 rejection) (see col. 1, lines 13-16) comprising the steps of analyzing the results of the selected RRM procedures (see col. 3, lines 11-14); choosing a subset of the selected RRM procedures to determine an optimal set of results (see col. 3, lines 15-21); and executing the subset of RRM procedures (see col. 3, lines 21-24).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Mortensen with the teachings of Lu to obtain the claimed inventions. A motivation to do so would have been to obtain optimum efficiency (see col. 3, lines 6-8).

Regarding claim 3, Mortensen discloses a method (refer to claim 2), wherein the performing step includes configuring a radio link (Mortensen discloses a method in which for changing a parameter set, synchronized radio link reconfiguration can be utilized; thus, inherently the radio link had to be configured before reconfiguration can happen. Furthermore, the steps of evaluating and selecting the trigger as described in claim 1 rejection, can be considered, as understood from the specification, functions of the configuration process) (see claim 1 rejection, see page 3, paragraph 7).

Although Mortensen discloses a method as described above, considering the dependency of this claim on the preceding claim, Mortensen fails to disclose a method comprising further comprising the steps of analyzing the results of the selected RRM procedures; choosing a subset

of the selected RRM procedures to determine an optimal set of results; executing the subset of RRM procedures.

However, Lu discloses a method for scheduling radio resource management (RRM) procedures in a wireless communication system (see claim 1 rejection) (see col. 1, lines 13-16) comprising the steps of analyzing the results of the selected RRM procedures (see col. 3, lines 11-14); choosing a subset of the selected RRM procedures to determine an optimal set of results (see col. 3, lines 15-21); and executing the subset of RRM procedures (see col. 3, lines 21-24).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Mortensen with the teachings of Lu to obtain the claimed inventions. A motivation to do so would have been to obtain optimum efficiency (see col. 3, lines 6-8).

Regarding claim 4, Mortensen discloses a method (refer to claim 2), wherein the performing step includes reconfiguring an existing radio link (see page 3, paragraph 7).

Although Mortensen discloses a method as described above, considering the dependency of this claim on the claim 2, Mortensen fails to disclose a method comprising further comprising the steps of analyzing the results of the selected RRM procedures; choosing a subset of the selected RRM procedures to determine an optimal set of results; executing the subset of RRM procedures.

However, Lu discloses a method for scheduling radio resource management (RRM) procedures in a wireless communication system (see claim 1 rejection) (see col. 1, lines 13-16) comprising the steps of analyzing the results of the selected RRM procedures (see col. 3, lines

11-14); choosing a subset of the selected RRM procedures to determine an optimal set of results (see col. 3, lines 15-21); and executing the subset of RRM procedures (see col. 3, lines 21-24).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Mortensen with the teachings of Lu to obtain the claimed inventions. A motivation to do so would have been to obtain optimum efficiency (see col. 3, lines 6-8).

Regarding claim 5, Mortensen discloses a method (see claim 2 rejection), wherein if the RRM procedure to be performed needs access to a radio link that is in the busy state, then performing the steps of: setting a flag associated with the RRM procedure to indicate a pending state (i.e. one way of controlling the load on the communication network consist of rejecting communication requests of a mobile station with a message forbidding the mobile station to access the channel for some specified length of time; one skilled in the art would immediately envision that when congestion arises, a message/flag associated with RRM procedure is sent to indicate a pending state by forbidding channel access) (see page 1, paragraph 2).

Although Mortensen discloses a method as described above, Mortensen fails to specifically disclose the steps of queuing the RRM procedure to be performed at a later time.

However, Lu discloses that packets are stored in multiple queues with priorities (see col. 1, lines 49-50).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Mortensen with the teachings of Lu to arrive at the claimed invention. A motivation to do so would have been to prevent congestion while obtaining optimum adaptability.

Regarding claim 6, Mortensen discloses a method as described in the preceding rejection (see claim 5 rejection).

Although, Mortensen discloses a method as described above, Mortensen fails to specifically disclose a method wherein any queued RRM procedures is performed when the radio link is in the idle state.

However, Lu discloses that packets are stored in multiple queues with priorities (i.e. one skilled in the art would unhesitatingly conceptualize that queuing of RRM procedure has to take place when the communication session in the idle state) (see col. 1, lines 49-50).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Mortensen with the teachings of Lu to arrive at the claimed invention. A motivation to do so would have been to obtain optimum efficiency with the method).

Regarding claim 7, Mortensen discloses a method as described in claim 2, wherein the set of predicted measurements (i.e. parameter set) (see paragraph 27) is stored in a centralized database (i.e. server) (see paragraph 27).

Although Mortensen discloses a method as described above, considering the dependency of this claim on the claim 2, Mortensen fails to disclose a method comprising further comprising the steps of analyzing the results of the selected RRM procedures; choosing a subset of the selected RRM procedures to determine an optimal set of results; executing the subset of RRM procedures.

However, Lu discloses a method for scheduling radio resource management (RRM) procedures in a wireless communication system (see claim 1 rejection) (see col. 1, lines 13-16)

comprising the steps of analyzing the results of the selected RRM procedures (see col. 3, lines 11-14); choosing a subset of the selected RRM procedures to determine an optimal set of results (see col. 3, lines 15-21); and executing the subset of RRM procedures (see col. 3, lines 21-24).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Mortensen with the teachings of Lu to obtain the claimed inventions. A motivation to do so would have been to obtain optimum efficiency (see col. 3, lines 6-8).

Regarding claim 8, Mortensen discloses a method as described in claim 1 rejection (see claim 1 rejection above).

Although Mortensen discloses a method as described in claim 1 rejection, Mortensen fails to specifically discloses a method further comprising the step of ordering the subset of RRM procedures.

However, Lu discloses a method for managing a plurality of RRM algorithm by defining algorithm priority levels before the execution process (see col. 3, lines 6-14)

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine both methods to arrive at the claimed invention. A motivation to do so would have been to obtain optimum efficiency with the method (see col. 3, lines 6-8).

Regarding claim 12, Mortensen discloses a method (see claim 9 rejection), wherein if the RRM procedure to be performed needs access to a radio link that is in the busy state, then performing the steps of: setting a flag associated with the RRM procedure to indicate a pending state (i.e. one way of controlling the load on the communication network consist of rejecting communication requests of a mobile station with a message forbidding the mobile station to

access the channel for some specified length of time; one skilled in the art would immediately envision that when congestion arises, a message/flag associated with RRM procedure is sent to indicate a pending state by forbidding channel access) (see page 1, paragraph 2).

Although Mortensen discloses a method as described above, Mortensen fails to specifically disclose the steps of queuing the RRM procedure to be performed at a later time.

However, Lu discloses that packets are stored in multiple queues with priorities (see col. 1, lines 49-50).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Mortensen with the teachings of Lu to arrive at the claimed invention. A motivation to do so would have been to prevent congestion while obtaining optimum adaptability.

Regarding claim 13, Mortensen discloses a method (see claim 12 rejection) as described above.

Although, Mortensen discloses a method as described above, Mortensen fails to specifically disclose a method wherein any queued RRM procedures is performed when the radio link is in the idle state.

However, Lu discloses that packets are stored in multiple queues with priorities (i.e. one skilled in the art would unhesitatingly conceptualize that queuing of RRM procedure has to take place when the communication session in the idle state) (see col. 1, lines 49-50).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Mortensen with the teachings of Lu to arrive at the

claimed invention. A motivation to do so would have been to obtain optimum efficiency with the method).

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pierre-Louis Desir whose telephone number is 703-605-4312. The examiner can normally be reached on (571) 272-7799.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Pierre-Louis Desir
AU 2681
07/10/2005

JEAN GELIN
PRIMARY EXAMINER